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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

PCT/KR2004/001683



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Applicant's or agent's file reference PCT04001	FOR FURTHER ACTION		See Form PCT/IPEA/416
International application No. PCT/KR2004/001683	International filing date(day/month/year) 09 JULY 2004 (09.07.2004)	Priority date (day/month/year) 11 JULY 2003 (11.07.2003)	
International Patent Classification (IPC) or national classification and IPC IPC7 E01F 15/00			
Applicant CHOI, Kwang-Chul			

- This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 4 sheets, including this cover sheet.
- This report is also accompanied by ANNEXES, comprising:
 - ☐ (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:
 - ☐ sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
 - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
 - ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____ containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box relating to Sequence Listing (see Section 802 of the Administrative Instructions).
- This report contains indications relating to the following items:
 - ☒ Box No. I Basis of the report
 - ☐ Box No. II Priority
 - ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - ☐ Box No. IV Lack of unity of invention
 - ☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - ☐ Box No. VI Certain documents cited
 - ☐ Box No. VII Certain defects in the international application
 - ☐ Box No. VIII Certain observations on the international application

Date of submission of the demand 29 APRIL 2005 (29.04.2005)	Date of completion of this report 27 OCTOBER 2005 (27.10.2005)
Name and mailing address of the IPEA/KR  Korean Intellectual Property Office 920 Dunsan-dong, Seo-gu, Daejeon 302-701, Republic of Korea Facsimile No. 82-42-472-7140	Authorized officer HEO, Ho Shin Telephone No. 82-42-481-8126 

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Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☒ This report is based on translations from the original language into the following language English, which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
- ☒ publication of the international application (under Rule 12.4)
- ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☒ the international application as originally filed/furnished
- ☐ the description:
 pages _____ as originally filed/furnished
 pages* _____ received by this Authority on _____
 pages* _____ received by this Authority on _____
- ☐ the claims:
 pages _____ as originally filed/furnished
 pages* _____ as amended (together with any statement) under Article 19
 pages* _____ received by this Authority on _____
 pages* _____ received by this Authority on _____
- ☐ the drawings:
 pages _____ as originally filed/furnished
 pages* _____ received by this Authority on _____
 pages* _____ received by this Authority on _____
- ☐ the sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1 - 5	YES
	Claims	NONE	NO
Inventive step (IS)	Claims	2	YES
	Claims	1, 3 - 5	NO
Industrial applicability (IA)	Claims	1 - 5	YES
	Claims	NONE	NO

2. Citations and explanations (Rule 70.7)

Reference is made to the following documents:

D1: JP 52-34131 U (AOKI KOUICHIRO) 10 March 1977
D2: KR 2000-201595 Y (KIM, IKBAE) 1 November 2000
D3: JP 9-302631 A (HOWA KK) 25 November 1997

1. Novelty

D1 relates to an eye-catching barrier comprising a colored casing which is inserted into a groove for reflecting the light of a vehicle. D2 relates to a reflecting plate of a road safety sign, which is coated with ultraviolet rays. D3 relates to a delineator for reflecting light, which is installed at a guardrail.

None of the available prior art documents D1-D3 disclose or suggest the subject-matter of the present application. Therefore, novelty can be acknowledged for the subject matter of claims 1-5 of the present application.

2. Inventive step

D1 is considered to be the closest prior art. Claim 1 is similar to D1 in that reflecting plates are formed at left and right sides of the reverse trapezoid casing and that the outer portions thereof are covered with covers, but different from D1 in that in claim 1 the reflecting surface of the inside consists of a mirror, whereas in D1 the inside of the casing is colored. However, such a difference is a mere difference in the design that can be readily selected and applied by a person skilled in the art, where necessary, and consequently neither involves any technical difficulty nor produces any surprising effect beyond the effect of D1. Accordingly, the light reflector of claim 1 can be readily invented by a person skilled in the art. Therefore, the subject matter of claim 1 is considered to lack an inventive step.

(Continued on Supplemental Sheet.)

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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.
Continuation of:

Box No. V

Claim 3 adds the following feature to the features of claim 1 or 2: formation of an inserting protrusion (13) at one side of the reflector's body and an inserting recess (14), into which the inserting protrusion (13) of another light reflector is inserted, at another side thereof. Said additional feature is a common means which can be selectively used by a person skilled in the art, where necessary, and consequently does not produce any unexpected operational effect. Accordingly, the light reflector of claim 3 can be readily invented by a person skilled in the art. Therefore, the subject matter of claim 3 is considered to lack an inventive step.

Claims 4-5 add the following feature to the features of claim 1 to 3: coating of an upper surface of a transparent cover (10) with a well-known transparent static electricity preventive materials (18). Said additional feature can be readily derived from the coating of the reflecting plate of D2, and is also a common means which can be selectively used by a person skilled in the art, where necessary. In addition, said feature does not produce any unexpected operational effect. Accordingly, the light reflector of claims 4-5 can be readily invented by a person skilled in the art. Therefore, the subject matter of claims 4-5 is considered to lack an inventive step.

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